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ABSTRACT

A New York State task force determined that the education system in the state must be changed to prepare youth for the high-performance workplaces of the future. According to the task force, the state must establish globally competitive standards for what youth must know and be able to do as they enter the workplace or postsecondary education. Schools should be restructured to foster the development of thinking and problem-solving skills. At the secondary level, students initially should work toward earning a Career Pathways Certificate (CPC) that would certify their mastery of rigorous academic fundamentals and entry-level workplace skills at a world-class level. Students would work toward their CPC in steps, as scouts do with merit badges. The CPC would be followed by attainment of a high school diploma and then a Professional and Technical Certificate (PTC) according to standards set by employers and labor. Throughout the process, business and organized labor should be involved in setting standards that should be followed. Funding for the school reforms should be provided by the state so that all students could benefit. (Appendixes include examples of work and school transition projects, numbers of program participants, and a list of work-related skills and competencies. (Contains 86 references.) (KC)

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ED350389

Education That Works:

Creating Career Pathways for New York State Youth

Mario M. Cuomo, Governor

SEPTEMBER 1992

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"Youth who wish to be employed before the age of 18 should have earned a Career Pathways Certificate (CPC) or be enrolled in a program leading to a CPC." (page 38)

"We must make a commitment to equity as we work to achieve excellence." (page 17)

"When it comes to the fundamentals -- reading, writing, mathematics, science and other academics -- New York State needs world-class standards for student progress measured by a strong system of performance-based assessments." (page 19)

"All students must pursue a more rigorous program of academic fundamentals." (page 21)

"For all to reach higher standards, we must change the way we educate young people." (page 33)

"We cannot expect young people to meet higher standards until schools and employers first provide the education, training and resources they need to be prepared. A phase-in period will be needed to give students the time necessary to reach higher standards. The phase-in must be accompanied by extra help and support for those who need it." (page 36)

"Too many youth, particularly in our cities, are being short-changed by a system that fails to guarantee adequate funding for public education in all communities in New York State." (page 44)

"A new system of schooling must be underway by the time next fall's sixth-graders -- the high school Class of 1999 -- are ready to begin high school." (page 46)

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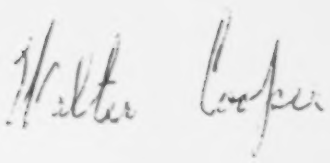

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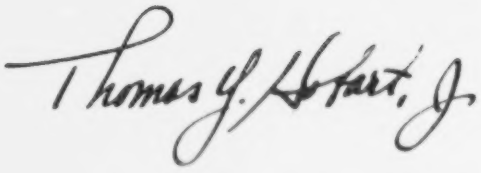

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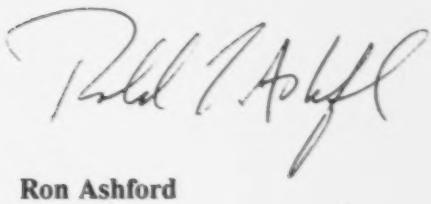

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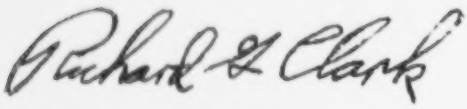

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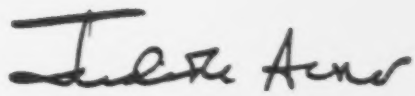

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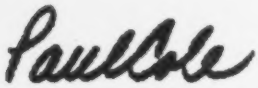

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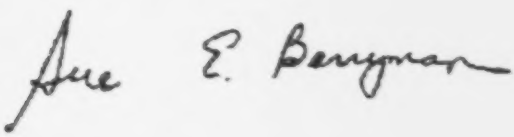

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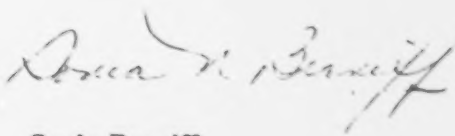

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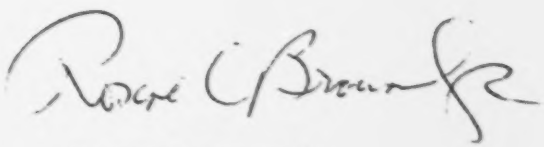

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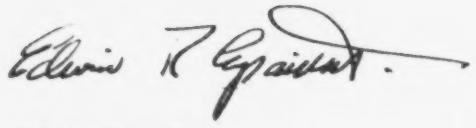

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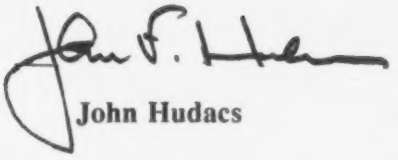

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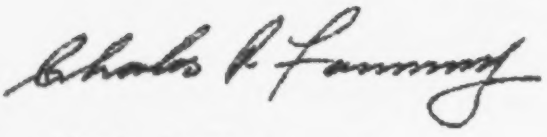

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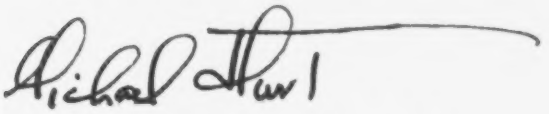

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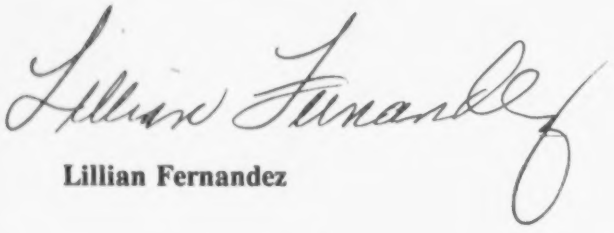

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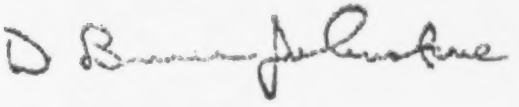

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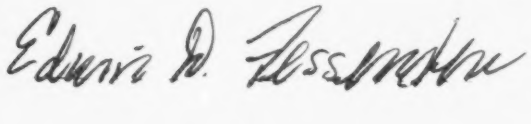

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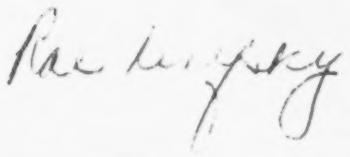

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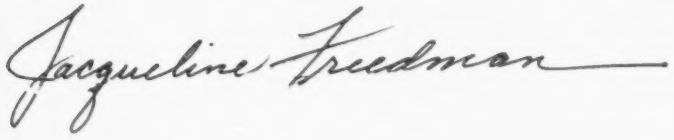

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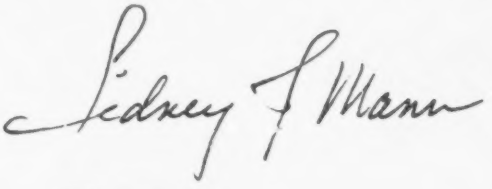

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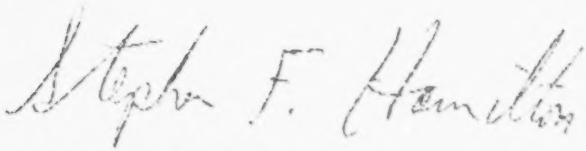

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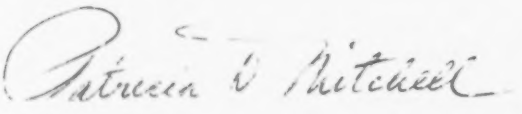

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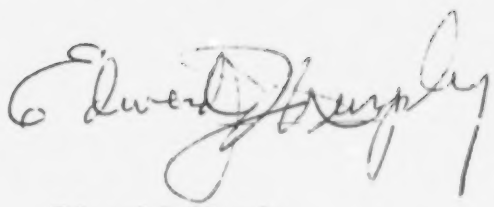

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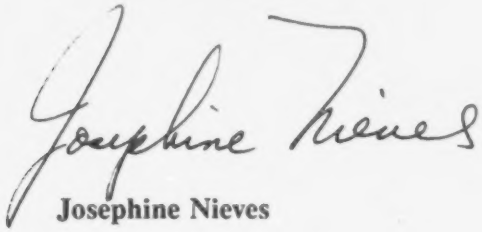

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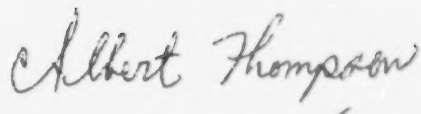

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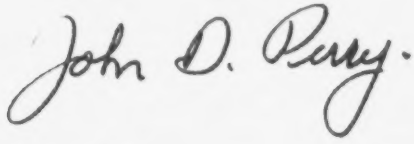

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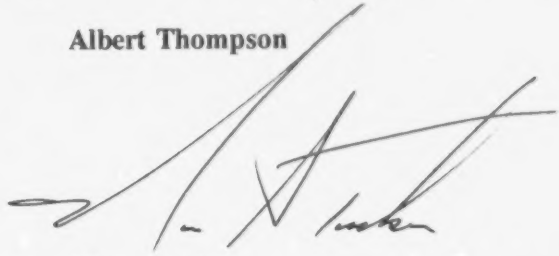

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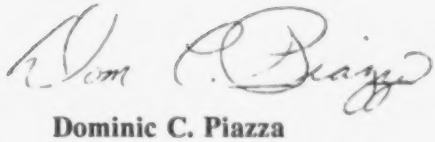

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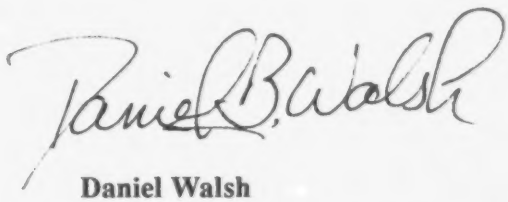

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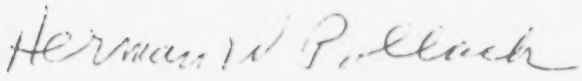

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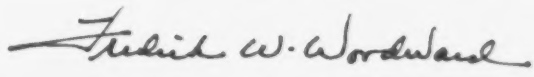

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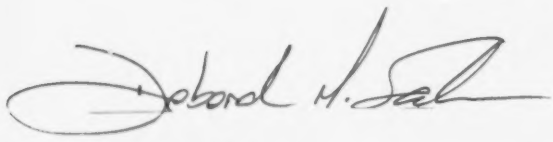

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EDUCATION THAT WORKS:
CREATING CAREER PATHWAYS FOR NEW YORK STATE YOUTH

TASK FORCE REPORT

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I. The Purpose of the Task Force

In 1991, New York Governor Mario M. Cuomo established the Task Force on Creating Career Pathways for New York State Youth. He asked Lt. Governor Stan Lundine, Vice Chair of the State Job Training Partnership Council, to oversee and guide the work of the Task Force as it endeavored to build on the framework of the Regents' New Compact for Learning and the workforce development mission of the Job Training Partnership Council. Over the last year, the Task Force has sought to answer significant questions:

- What will employers need in the workforce of the future?
- What kind of preparation should young people receive to be well-fitted for work?
- What can we learn from the highly successful traditional registered apprenticeship system found primarily in the building and construction trades?
- Can we strengthen and broaden career pathways to ensure that all young people have access to a productive future?

The need to better prepare youth takes on added urgency as New York State confronts the enormous demands of an intensely competitive global economy.

The need to better prepare youth takes on added urgency as New York State confronts the enormous demands of an intensely competitive global economy — one that will represent increasing challenges into the 21st Century. Governor Cuomo, in his 1990 State of the State address, initiated "Global New York" as an economic development effort to position New York State as a leader in a new world economic order. The Task Force's charge — to address the workforce preparation of our youth — is central to that effort.

The Task Force is chaired by Walter Cooper, member of the New York State Board of Regents and Chair of its Committee on Elementary, Middle and Secondary Education, and Thomas Y. Hobart Jr., Vice Chair of the New York State Job Training Partnership Council, President of the New York State United Teachers, and Vice President of the New York State AFL-CIO. Task Force membership includes employers from a range of businesses, leaders of the AFL-CIO and representatives from education (BOCES, urban, rural and

suburban districts and higher education), the Legislature, the Executive Branch and training agencies.

The Task Force reviewed a wide range of scholarly and critical material on the shortcomings in current approaches to preparing students for the world of work. Key studies included ***America's Choice: high skills or low wages!*** (National Center on Education and the Economy), ***The Forgotten Half*** (W.T. Grant Foundation), ***Training America, Strategies for the Nation*** (The American Society for Training and Development) and the two SCANS reports: ***What Work Requires of Schools*** and ***Learning a Living.*** There were many others. In addition, we heard presentations from researchers, employers, representatives of state agencies and others with areas of expertise, and met in committees to concentrate on specific topics.

We recognize that work readiness is just one of several important aims of education; others include preparing young people to lead full and creative lives, participate in a democracy, appreciate the arts and respect cultural diversity.

The Task Force believes that in order to maintain global competitiveness, we have to create a world-class competitive workforce. There are examples of industries in New York State that have maintained their competitive edge, even in light of significant challenges from international rivals, because of their effective use of well-trained workers. Examples include the Portable Lamp and Shade Industry in New York City; Levitown and Eagle, both of Long Island, which manufacture faceplates and electrical fixtures; and the garment industry of 7th Avenue.

In developing policy recommendations for New York State, the Task Force sought to draw on leading school-to-work initiatives underway at the local and national levels (see Appendix A). The Commission on the Skills of the American Workforce first outlined in ***America's Choice*** a plan for new educational performance standards at the national level. Efforts to identify standards for work readiness are underway at the Educational Testing Service, the Armed Services and the United States Department of Labor Advisory Commission on Work Based Learning. The National Center on Education and the Economy, based in Rochester, is engaged in an effort to quantify work readiness through its New Standards Project. The United States Department of Labor Secretary's Commission on Achieving Necessary Skills (SCANS) has done significant work in this area and we draw on it throughout our plan (see Appendix C).

We recognize that work readiness is just one of several important aims of education; others include preparing young people to lead full and creative lives, participate in a democracy, appreciate the arts and respect cultural diversity. The Task Force believes that the changes we seek will help further all the goals of public education.

That includes producing responsible citizens as well as capable workers and ensuring young people have the greatest possible range of choices in preparing for their life's work.

The document that follows contains a rationale and recommendations for a new approach to education in New York State. The recommendations are not intended to be considered piecemeal but as integral and interlocking components of a comprehensive plan. We have worked to ensure that our proposal is in harmony with the significant goals expressed by the Board of Regents and the State Education Department in the New Compact for Learning. Our recommendations delineate that portion of the Compact's Five-Year Strategic Plan which calls for "preparation for work and college, and fostering better transition for students between school and work, and school and college." The Task Force proposes bold and innovative directions for advancing the Compact's goals — including new, more flexible career pathways for our youth.

We call upon policymakers to adopt a timetable for action that will ensure a system of new career pathways is in place by 1995.

This report was forged after months of study, debate and consideration. The Task Force was not charged with implementing its recommendations; that work will fall to the Regents, the Executive Branch (including agencies not typically involved in education, such as Economic Development and Corrections) and the Legislature. Employers must be integral participants in this new system of education and must share in the effort of implementation. Coordination at all levels will be critically important.

The New Compact for Learning, when addressing coordination of school reform, applies the wisdom of the African proverb, "It takes the whole village to raise a child." The Task Force emphatically agrees that it is necessary to involve the whole community, in particular parents, to ensure all children receive the education they need. Because the Task Force's charge was to examine issues related to work readiness, we have perforce concentrated on the need for partnerships between employers, labor and the schools; however, we wholeheartedly endorse the Compact's broader goal of involving all the community in the education of our children.

We believe that enough time has been spent detailing society's shortfalls in its commitment to world-class education. We need to get on with the job of turning commitment into action with a propelling sense of urgency. As we present ***Education That Works: Creating Career Pathways for New York State Youth*** to policymakers, we also call upon them to adopt a time table for action — one that will ensure a system of new pathways is in place by 1995 and fully operational for the Class of 1999 and succeeding generations of New York youth.

II. Executive Summary*

** (See Appendix D for summary of recommendations)*

The future shape and vitality of New York State's economy, the ninth largest in the world, will be determined in large part by the quality of workers available to New York industries. Without a work force that is globally competitive, production and service businesses with high value jobs will flee from New York, relegating our state to a third-rate economic power. The loss of jobs would dim the prospects, and the standard of living, of subsequent generations of New Yorkers.

To ensure our young people will be ready to succeed in a global economy and also to achieve the personal goals that require a world-class education, we are calling for significant changes in what youth learn, how they are taught and what results are expected. The Task Force proposes new directions for public education and workplace training — including flexible career pathways for today's youth. The term "career pathways" refers to an integrated system of education, training and work experience. Just as our expectations for the next generation of workers have increased in light of the ever-evolving global standards of competition, so too must education evolve to help students meet the demands of today and tomorrow.

Youth must be prepared for high-performance workplaces — where workers are invested with responsibility and expected to possess a range of high-level skills and abilities. To provide the skilled workforce that will be needed in high performance workplaces in every sector — public, private and not-for-profit — we must change the way we do business in our schools and on the job.

Guiding Principles

New York State must establish and maintain globally competitive standards for what youth must know and be able to do as they enter the workplace or continue their post-secondary education. All students need a more rigorous foundation in academics; in addition, New York State must establish globally competitive standards for workplace skills.

The state must make a commitment to equity even as we work to achieve excellence in education. If higher standards are instituted

with no changes in the structure of our schools and how they function, we are likely to see a worsening of an already shameful dropout rate. We must commit to setting our sights high and providing the support ***every*** child needs to succeed. Our vision must be backed by the resources required to ensure all youth are prepared for a full and productive life.

NEW DIRECTIONS IN PUBLIC EDUCATION

We envision changes in the entire continuum of public education.

Schools must be restructured to create learning environments that foster development of the thinking and problem-solving skills young people need. All students should be challenged intellectually and required to apply what they know to real world problems. At the high school level, the general track option leading to a local high school diploma should be eliminated. An integrated and flexible system of education, training and work experience — a system of career pathways — must be instituted to prepare youth for work and lifelong learning.

THE CAREER PATHWAYS CERTIFICATE

At the secondary school level, students initially should work toward earning a Career Pathways Certificate (CPC) that would certify their mastery of rigorous academic fundamentals and entry-level workplace skills at a world class level. Just as scouts work toward a merit badge in stages, so too would individuals work toward a CPC, which would be a stepping-stone to continued education. The length of time it would take to earn a CPC would vary based on a student's rate of progress; typically many young people would likely earn a CPC at or about 16, but some would receive it earlier and others would take longer. The standards for earning a CPC should be the same for all. Those who need special help in progressing toward a CPC, including youth with disabilities, those who are not fluent in English, or youth with family care responsibilities, should receive appropriate assistance.

The state Curriculum and Assessment Council should be charged with recommending to the Board of Regents standards for earning a Career Pathways Certificate.

The High School Diploma

A high school diploma should be the benchmark following a Career Pathways Certificate. However, for the diploma to be meaningful, there should be some significant differences between the current high school local diploma and the diploma earned by students after the implementation of recommendations in this report. The high school diploma should be awarded for demonstrated mastery beyond the CPC of advanced academics and employability skills at levels that would greatly exceed the standards in the current system. In addition, all students should be required to complete a school-supervised work experience along with mastering other competencies related to Regents goals such as citizenship, health, foreign language, physical fitness, etc. To make work experiences a reality, employers in the private, public and not-for-profit sectors will need to work in partnership with the public schools.

As youth progress toward a high school diploma, they should be able to choose from a variety of educational pathways leading to advanced mastery in a range of fields. All pathways following the completion of a Career Pathways Certificate should include a mix of academic courses, technical or professional skills and the school-structured work experience. Young people would have maximum flexibility in combining these elements in varying proportions to reach individual goals. The concept of an academic track or a vocational track should be abandoned since ***all*** youth would incorporate a variety of elements into their courses of study.

Professional and Technical Certificates

In addition to a CPC, which will be required of all students, and a high school diploma, young people should have the option of earning non-baccalaureate Professional and Technical Certificates (PTC) established by New York State and based on industry-defined standards. Employers and labor should play a significant role in setting the standards for these certificates, which should incorporate and build on the standards for a high school diploma. This system of credentialing should certify student performance at globally competitive levels in specific fields. In developing pathways leading to PTCs, the state should consider models such as youth entrepreneurship programs, youth apprenticeship programs and tech-prep programs that span the last two years of high school and the first two years of community college.

MAKING THE CPC MEANINGFUL

Youth who wish to be employed before the age of 18 should have earned a CPC or be enrolled in a program leading to a CPC. We do not want to prohibit young people from working; we recognize that many young people must choose to work for their own or their family's economic survival. Instead, we want to ensure that even while youth are working, they retain a ***connection to education*** that at the very least will ensure they have the skills and knowledge to prevent a beginning job from becoming a dead-end. The challenge comes in balancing an immediate need to work with the more long-term imperative of being well-educated and prepared to participate in a global economy.

The Task Force was concerned that establishing the CPC (or schooling leading to a CPC) as a precondition for employment could have the unintended effect of propelling some drop-outs into underground employment. Clearly this would be a disaster. At the same time, the CPC must be a meaningful credential that stands for academic achievement and work readiness.

Therefore, while the Task Force recommends linking the CPC (or enrollment in a program leading to a CPC) with the right to work before age 18, this linkage must not be made until certain conditions are met: an adequate phase-in period; a system of flexible ways for students to continue working toward a CPC even with full-time employment; a coordination of social services young people may need; and support from employers in helping workers achieve a CPC. We must offer a strong network of alternative learning environments for school dropouts even as we work toward the important long-term goal of bringing the dropout rate to zero.

EMPLOYER/ORGANIZED LABOR INVOLVEMENT

Throughout the educational process, business and organized labor must be fully involved in preparing the next generation of workers: helping to advise the Regents on standards for work readiness; participating in setting industry-defined standards for Professional and Technical Certificates (PTCs); working with schools to structure work readiness requirements for attaining a CPC; helping employees continue their education; and working in partnership with the schools to design and conduct work experiences for secondary students. Business' and organized labor's investment in the next generation of workers will yield dividends in the future.

GOVERNANCE

The state Curriculum and Assessment Council should be made permanent and should serve as a standards board to advise the Regents on the standards for a Career Pathways Certificate; the Council's membership should be amended to include significant representation from employers and organized labor who can provide perspective on the skills needed for the workplace. In addition, the state should establish a New York State Professional and Technical (PT) Standards Board charged with designing and implementing standards for a range of occupations and trades, and with issuing Professional and Technical Certificates.

FUNDING

Too many young people compete on an unlevel playing field caused by a wide variance in educational resources statewide. The Task Force endorses the Salerno Commission recommendations for improving equity in funding. There must be assurances that all children, in particular those who live in poor areas, receive the education they need for a full and productive life. All New York State youth should be entitled to a world-class education regardless of their life circumstances.

THE NEED FOR CHANGE

This Task Force is calling for radical changes in how we prepare young people in large part because the rapidly evolving global work place demands it. New York State runs the very real risk of becoming an economic has-been, unable to compete globally or to ensure a decent standard of living for future generations. Today's world-class workers need a grasp of the fundamentals as well as the more complex skills required in a global economy — but our current system is failing to prepare young people to a globally competitive standard. We must connect school with work.

Above all, public education must give young people the skills and knowledge they need to be lifelong learners. Our goal is not to direct them to a single destination, but to equip them as travellers on a lifelong journey.

III. New York State Needs a Better Way of Preparing Young People for Work

New York State must get its young people working.

First and foremost, we want to get them working in school to acquire the skills and knowledge they need to be productive citizens.

Ultimately, when they have reaped the benefits of a world-class education, we want to see them working in jobs that raise New York State's standard of living and provide a decent future for workers and their families.

To achieve those goals, we must ourselves get to work at making major changes in the way we do business in our schools and on the job.

"World-class" workers need a grasp of fundamentals as well as the more complex skills required by today's global economy.

A. The Global Workplace is Rapidly Evolving

If an on-line assembly worker doing a single repetitive task represented the workplace of yesterday, an on-line computer operator working as part of a multi-disciplinary problem-solving team may symbolize the challenges of today and the even greater challenges of tomorrow. Twenty years ago, well-paid manufacturing jobs offered those without advanced training the opportunity to achieve the American Dream. But now the dream is receding; New York State has lost some 400,000 manufacturing jobs since 1980. As these jobs disappear, a two-tier system of opportunity begins evolving: decent pay and challenging work for those with advanced education and skill and dead-end, low-paid jobs for those who cannot compete. In 1988, ***The Forgotten Half***, an in-depth study of U.S. youth who are not college-bound, issued this grim warning: "The nation may face a future divided not along lines of race or geography, but rather of education."

"World-class" workers need a grasp of fundamentals as well as the more complex skills required by today's global economy. In its draft paper, ***Education for a Productive Workforce,*** (February, 1992), the State Education Department reported the results of a survey of a representative sample of small and large businesses throughout New York State. Based on those responses, the department identified the

skills needed to perform various jobs which do not require a college degree. The conclusion was that all youth need to be proficient in basics such as reading, writing, mathematics, speaking, listening, thinking/cognitive skills and personal skills. But in addition, the State Education department cautioned that "proficiency in these skills alone will not be adequate preparation for the workplace of the 21st Century. Young people must also be able to manage resources, demonstrate highly developed interpersonal skills, manipulate information systems, possess organization skills, possess critical communications skills, be creative with technology, and for some positions, possess manual dexterity."

What worked reasonably well in the past — when even those without a high school diploma might expect to earn a living wage on a factory assembly line — will not meet the demands of the 1990s or beyond. The static, top-down workplace of decades ago has been replaced by dynamic workplaces that place increasing reliance on front-line workers. Americans can expect to have two or more careers and to hold seven or more jobs in a lifetime. New York State requires schools that can teach young people from a wide range of economic, ethnic and cultural backgrounds and offer them wide-ranging career options that are not limited by stereotyping or historical biases.

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B. Options in Our Current System

In general, New York State schools offer secondary students three options: a college-bound course of study, a general, less rigorous academic program, or a vocational program that includes Regents and/or general track academics. Students can choose to complement any academic program with occupational education in a wide range of subjects. The state's system of diplomas does not differentiate among those who receive career-related education and those who do not. With a few exceptions, students earn either a Regents diploma or a local diploma.

Slightly more than a third of state students (in 1990, 35 percent of males and 39 percent of female high school seniors) take an academic program leading to a Regents diploma. This course of study, which is viewed as solid academic preparation for college, typically includes little or no direct employment related skills. Close to two-thirds of New York State high school students earn local diplomas (in 1990, 62 percent of male and 59 percent of female high school seniors;

in the cities, the proportions are significantly higher.) The program leading to a local diploma is typically a less rigorous academic curriculum that is not considered a springboard to a baccalaureate degree. Neither does it equip youth to enter the world of work since the general track does not require occupational training. (It is true that a small number of affluent districts award local diplomas for completion of curriculum with a rigor exceeding that of the Regents. These isolated instances are not what we refer to here.) The local diploma too often is an award for attendance rather than an authentic credential of knowledge or skills that equips youth for the workplace or continued education.

Aside from junior-high level courses in "***Home and Career Skills,***" and an "***Introduction to Technology***" (representing, respectively, three fourths of a credit and one credit each), the state does not mandate any study directly relating to employment or work readiness. The mandated programs at the junior-high level deserve continued support, but they are not nearly enough.

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The extent and quality of elective programs of study in occupational or vocational education vary from district to district. These include city high schools that specialize in vocational education (New York City's High School of Aviation Trades and schools in Buffalo, Syracuse, Rochester and Yonkers, among others), occupational education programs offered by school districts and the 41 Board of Cooperative Educational Services (BOCES) districts, which operate 72 regional sites shared by individual school districts.

Quality occupational education programs currently in place are equipping youth for entry-level jobs in a variety of fields. An informal state survey of secondary students who had completed occupational education programs found that for the class of 1987, the most recent year for which data was available, 91 percent were either productively employed in the workplace or in the military, or were enrolled in post-secondary education. But while many of the current secondary occupational education programs offer excellent preparation, they are reaching only a fraction of the state's student population. In 1990-91, there were only 308,141 students at the secondary level (38 percent) enrolled in some type of occupational education program out of a secondary school population of 777,208. Enrollment in occupational education varies across the state: in New York City, there are long waiting lists for available programs, while upstate some programs are under-enrolled for their capacity. Similarly, there are differences statewide in the commitment of resources. Individual programs often do not have modern equipment or relevance to fast-changing work-

Emphasizing a four-year baccalaureate degree as the primary avenue to a productive future ignores reality and ill-serves our young people as well as our economy.

place demands. For instance, a printing course offered at one urban high school concentrated exclusively on traditional composition and printing, even as desk-top publishing was revolutionizing printing in the "real world." Because the quality and standards of programs may vary, there are few benchmarks for employers that identify whether a graduate of a particular occupational education program has acquired specific skills.

Why is New York producing such a relatively low number of young people with occupational or vocational training in light of the increasing need for highly skilled workers? The answer is complex and embedded in basic societal attitudes toward secondary education. In the latter half of this century, society emphasized a college education as the primary pathway to the American dream, relegating occupational education to second-class status. An analysis by the Association for Supervision and Curriculum Development notes, "Vocational education must overcome a number of obstacles: declining enrollment, a persistent image problem and the American public's belief that only a four-year college degree is good enough for 'my child.'" In a similar vein, the Occupational Education Committee of the District Superintendents of New York State states in a 1989 position paper that a "very narrowly defined dialogue at the national and state level" on education reform has largely overlooked vocational/occupational education as a vital option for youth.

Emphasizing a four-year baccalaureate degree as the primary avenue to a productive future ignores reality and ill-serves our young people as well as our economy. William L. Lepley, director of the Iowa Department of Education, notes, "Not everyone needs a four-year college education and it is a tremendous disservice to pretend otherwise. Most labor market information indicates that the majority of future jobs will be for people with less than a bachelor's degree. Possible the biggest failure of American public education is that it hasn't prepared students for this future."

William H. Kohlberg and Foster C. Smith, President and Senior Vice President of the National Alliance of Business, in their book, ***Rebuilding America's Workplace***, summarize the problem as follows, "The American education system is geared to producing college graduates but only 30 percent of jobs in this country require a college degree. The United States has not developed systems for producing world-class front-line workers."

C. Public Education Must Respond to the Challenge

The enterprise of public education is undergoing significant reforms, but a critical need has yet to be adequately addressed: the way we prepare youth for the world of work.

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Because occupational education has not been emphasized as an integral element of secondary education, many students defer work-relevant education until after high school. Two-year colleges help provide this necessary education to some of our young people, but large numbers who "postpone" vocational education will never receive it. While most high school students say they plan on college — and about three-quarters of New York State high school graduates do go on to some form of post-secondary education — only half of those actually graduate. When we consider the entire pool of young people — including high school dropouts as well as graduates — currently only 30 percent of our young people will earn a two- or four-year college degree.

What happens then to the 70 percent without a college degree?

Far too many are unprepared for a productive future.

The reality is that New York State lacks a coherent system for helping young people make the transition from school to the workplace. A majority of our high school graduates will confront the job market with no discernible skills. The future is even bleaker for high school dropouts — the 20 percent or more who leave before 12th grade. Without any credential, often lacking rudimentary skills, they exit the system totally unprepared for meaningful employment. According to the State Job Training Partnership Council, sample data from 1989 indicate that of the total state working age (18-64) population of 11,304,000, more than two million — some 18 percent — have not completed high school or earned a high school equivalency diploma.

A majority of our high school graduates will confront the job market with no discernible skills. The future is even bleaker for high school dropouts — the 20 percent or more who leave before 12th grade.

To produce a globally competitive workforce, it will not be enough simply to replicate quality vocational education programs currently in place. We need to use those programs as a starting point — not a destination — for building a world-class system of career pathways that allows young people to progress along a continuum of lifelong learning. A system of ongoing career preparation must make it possible for individuals to progress past entry-level jobs and to switch careers as their needs and interests dictate. Both for young women

and young men, this system must promote equal opportunities to choose career pathways free of sex-role stereotyping.

"America's success or failure in the global marketplace depends above all else on success or failure in the local schoolhouse," says Keith Geiger, president of the National Education Association (NEA). "To succeed in tomorrow's world, our students must be better educated than any previous generation. Better student performance today will mean better worker performance tomorrow."

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D. Employers and Labor Unions Must Respond to the Challenge

Our failure to educate the majority of youth for the working world is a significant problem for many young adults. It is no less a problem for the employers who expect schools to produce the next generation of workers. Business leaders note that even graduates of our high schools lack the basic skills needed for entry-level positions. Task force member Richard G. Clark, Chairman of Clarks Petroleum Service Inc., speaks for many when says, "The people we hire need to be able to listen and to speak well. We get young people who can do neither."

Change in the educational system is not being requested by the business community to primarily benefit business per se, but because employers who work closely with graduates of the schools may have recognized a societal need more quickly than other sectors. In all areas — public, private and not-for-profit — there is an increasing need for well-trained workers.

New York State and the nation lack a comprehensive, systematic way for employers and labor unions to participate in public education.

In New York State, a number of forward-thinking companies have invested substantially in schools, including school-to-work transition programs, on-the-job training and a range of innovative programs. But these significant school/work partnerships are limited in number and modest in impact relative to the school population. Unfortunately, employer/labor involvement in the schools usually is tacked on to the standard curriculum, rather than integrated into it. That reflects the historical evolution of the public school system and the business world as separate spheres with little overlap or organized avenues for continuing interaction. Consequently, New York State and the nation lack a comprehensive, systematic way for employers and labor unions to participate in public education. This contrasts sharply with many European countries where employers and labor are an

integral part of public education, supporting vocational centers, providing internships for students, and forging partnerships with schools to open up other education and training opportunities for youth.

America's Choice: high skills or low wages!, the report of the Commission on the Skills of the American Workforce, concludes that the United States is losing ground in global competition primarily because schools ***and*** employers are failing to invest in training workers. The report cites the virtual neglect of non-college-bound youth and workers as one of the factors propelling the United States toward an economic cliff.

While educational restructuring is needed to better prepare youth for a high skills workplace, workplace restructuring also must continue apace. ***America's Choice*** says those companies that have instituted "high performance" workplaces to maximize the authority and responsibility of front-line employees are succeeding in international competition — but too few employers are moving quickly or aggressively enough to embrace the changes needed to create high skills jobs. The successful workplace of tomorrow will not only contain better prepared workers, but also supervisors who can motivate employees to practice innovation and teamwork.

Even as international comparisons show our youth lagging behind their peers in other countries, those nations are moving forward.

E. Linking the Classroom and the Workplace

International comparisons made by the U.S. General Accounting Office sum up the differences between the United States and four competitor nations — England, Germany, Japan and Sweden — in preparing students for work:

- The four competitors expect all students to succeed in school, particularly in primary grades. U.S. schools expect that many students will fall behind.

- The competitors certify students' skills through competency-based national training standards. In the United States, states certify the completion of a program — such as high school — but do not verify students' skills or knowledge.

- The competitors make substantial investments in the training and education of non-college-bound youth. The United States invests less than half as much for those headed for the workplace as it does in those geared for college.

- The competitors offer a much stronger support network for the transition from school to work, with assistance provided by schools, employers and labor; the United States does not.

Edward J. Cleary, President of the New York State AFL-CIO, points out that leading United States companies are instituting revolutionary approaches to team work that establish unions as full partners in the process. But a significant challenge lies ahead: to fully involve employers and labor on a widespread basis in preparing the next generation of workers.

It's plain that our current set-up serves neither our young people nor the companies that depend on finding qualified employees.

Even as international comparisons show our youth lagging behind their peers in other countries, those nations are moving forward. We must not only narrow the gap, but also move ahead. And business and labor must be deeply involved — in helping to set the standards for what students should know and be expected to do, in providing career information and in working with the schools to provide educational work experiences.

Albert Shanker, President of the American Federation of Teachers, stresses the need to forge closer links between work and school: "It's plain that our current set-up serves neither our young people nor the companies that depend on finding qualified employees. The kids who often see school-learning as irrelevant to the jobs they'll get when they graduate, spend their school years marking time. And they get out of school bored, disaffected and ignorant. At the same time, employers look in vain for employees with the skills and habits of mind necessary for even entry-level positions."

The answer is to connect school with work.

IV. Guiding Principles for A New Approach to Preparing Youth For Work and Life-Long Learning

We propose a new system for preparing youth for work and education beyond high school. We believe the learning process itself must be revolutionized to foster those skills young people will need as workers and citizens in the next century.

New York State must establish world-class standards for what youth must know and be able to do as they enter the workplace or continue their post-secondary education.

Our plan is based on the following three guiding principles that underscore every recommendation in this report:

A. Setting World-class Standards

New York State must establish world-class standards for what youth must know and be able to do as they enter the workplace or continue their post-secondary education.

What do we mean by world-class? Quite simply, we want New York State standards to meet or exceed the highest standards in the world for preparing an individual for work, advanced training or college. For all students, public education must include a more rigorous program of "the basics" to reach world-class standards in literacy and computation and the integration of work-related skills and career information free of sex-role stereotyping from kindergarten up.

We must make a commitment to equity as we work to achieve excellence.

B. Committing to Equity

We must make a commitment to equity as we work to achieve excellence. Educational opportunities must not be dependent upon where children live, their household income, race or gender. All children can learn. They may learn in different ways and at different rates, but our goal for every student must be no less than a literate and productive life. That means we will no longer accept a system that "graduates" students with a credential that fails to certify knowledge or skills.

Even as we acknowledge the need for higher standards of student achievement, we must leave no child behind. If higher standards are instituted with no changes in the structure of our schools, the state might see only a worsening of an already shameful dropout rate. Society cannot ignore the reality of poverty, family

problems and a host of other conditions that may interfere with the ability of children to learn. But we do not help children escape a cycle of failure by lowering standards. A system that has one set of standards for advantaged students, and another "lower" bar for those at risk, is perpetuating the very divisions caused by economic class and personal circumstance.

The Task Force believes the state must set its sights high and provide the support each child needs to succeed.

*As we refocus public education to provide clear pathways, not only to college, but also to the full range of careers that do not require a degree, we will need to make changes in the curriculum — **what** students learn — and more importantly, in **how** they learn, in order to produce active learners who can apply what they know in real-life settings.*

C. Restructuring Public Education

Public schools must continue to be the primary providers of work force education and preparation to give all young people access to a productive future. But New York State's system of public education must be fundamentally restructured to do a better job of helping all children learn.

We must make significant changes in ***how*** our schools educate young people. As we refocus public education to provide clear pathways, not only to college, but also to the full range of careers that do not require a degree, we will need to make changes in the curriculum — ***what*** students learn — and more importantly, in ***how*** they learn, in order to produce active learners who can apply what they know in real-life settings. The entire community, including parents, educators, business (private and public sector employers) and labor must commit to bridging the gap between school and work.

Restructured schools should recognize individual differences and use a flexible range of teaching methods and "real-life" experiences to help children learn. Extra help and support must be provided to those who may need it, including those with learning disabilities, immigrants who are not fluent in English or those with family care responsibilities. There must be a strong network of programs that offer educational alternatives for youth who have dropped out.

V. Recommendations for Creating Career Pathways for Youth

Although many of our recommendations focus on the high school years that serve as the launching pad for college or the world of work, we are calling for changes in the entire continuum of public education. The significant changes that are needed will have an impact on every grade from kindergarten through 12 and beyond. Following are detailed recommendations and rationales for this new system of public education.

STANDARDS

When it comes to the fundamentals — reading, writing, mathematics, science and other academics — New York State needs world-class standards for student progress measured by a strong system of performance-based assessments.

RECOMMENDATION #1: *New York State must institute and maintain world-class standards in the academic areas that form the foundation for all education.*

When it comes to the fundamentals -- reading, writing, mathematics, science and other academics -- New York State needs world-class standards for student progress measured by a strong system of performance-based assessments. In addition to a stronger emphasis on fundamental academics, we need to emphasize the thinking, communications and performance skills that will be called upon over and over again in a student's lifetime as he/she adapts to new life challenges.

RECOMMENDATION #2: *New York State must institute and maintain world-class standards for the workplace skills needed to succeed in careers.*

An intensive effort must be made to define precisely the skills and content knowledge people need to be prepared for the workplace. It will be crucial for employers and labor unions as well as educators to be involved in helping set standards and goals related to workplace skills. As a starting point, we believe New York State must build on the State Education Department's Career Validation Study, the work of the State Department of Labor, and the workplace know-how defined by the U.S. Department of Labor Secretary's Commission on

Achieving Necessary Skills (SCANS). (See Appendix C.) In two reports, ***What Work Requires of Schools*** and ***Learning a Living,*** SCANS researched what defines effective job performance today. The Commission found that a competent worker must possess basic skills — be able to read, write, do math, listen and speak. In addition, the Commission noted that "tomorrow's career ladders require even the basic skills — the old 3Rs — to take on new meaning." For instance, reading requirements on the job might include interpreting blueprints and materials catalogues, dealing with letters and written policy on complaints, reading patients' medical records and medical instructions and reading the text of technical manuals from equipment vendors.

The Regents' New Compact for Learning addresses the need for students to acquire not just knowledge, but the ability to apply that knowledge.

The successful worker also must display thinking skills. There is a need to think creatively, make decisions, solve problems, visualize information, know how to learn and reason. And a worker needs to display personal qualities that include responsibility, self-esteem, sociability, self-management, integrity and honesty.

The SCANS Commission also identified five competencies necessary for effective job performance. They are:

- Resources: Identifies, organizes, plans and allocates resources.
- Interpersonal: Works with others, leads, negotiates, communicates.
- Information: Acquires, organizes, interprets and uses information.
- Systems: Understands, monitors and improves complex systems.
- Technology: Selects, applies and maintains a variety of technologies.

The Regents' New Compact for Learning addresses the need for students to acquire not just knowledge, but the ability to apply that knowledge. Accordingly, these skills and technology competencies should not be tacked on to a standard academic program but instead they must be incorporated into the curriculum for all students and integrated into what students learn in every discipline.

NEW DIRECTIONS IN PUBLIC EDUCATION

RECOMMENDATION #3: *To help students reach these new expectations of progress in academics and work-related skills, New York State must embark on significant new directions in public education. Specifically:*

- *All students must pursue a more rigorous program of academic fundamentals.*
- *Workplace skills and career information must be integrated into the curriculum from kindergarten on.*
- *At the high school level, the general track option leading to a local high school diploma should be eliminated. New career pathways free of stereotyping should be created that prepare all youth for work and lifelong learning.*
- *A school-structured on-the-job experience should be required of all secondary school students after they have demonstrated work readiness skills.*

At the high school level, the general track option leading to a local high school diploma should be eliminated. New career pathways free of stereotyping should be created that prepare all youth for work and lifelong learning.

ACADEMICS MUST BE MORE RIGOROUS

It would be a mistake to view the Task Force's call for work-related education as an attempt to diminish the need for academics. To be prepared for life as well as work, all New York State students need an academic foundation that greatly exceeds the requirements currently in place. Certainly academic skills are fundamental to success on the job, yet employers say too many job applicants lack math, reading, writing and communications skills. More than ever before, all students need a thorough grounding in academic subjects to a standard commensurate with excellence at a global level.

WORK-RELATED INSTRUCTION

Instruction in careers and in employment-related skills should be integrated into the curriculum from kindergarten on. While it is vital that we strengthen the information youth receive on career options across the disciplines, we envision something much more

integrated than a "careers awareness" program. In addition to learning about careers, students throughout their education should be acquiring the skills and work-habits they will need on the job and as citizens. In the elementary grades, this might include learning to work in a group or discovering how to research solutions to a problem.

Guidance counselors need to be involved in developing new and expanded pathways for students. Attention must be given to developing career information that removes the stigma of race, gender or class from certain career alternatives.

While it is vital that we strengthen the information youth receive on career options across the disciplines, we envision something much more integrated than a "careers awareness" program.

Instilling Personal Responsibility

The U.S. Department of Labor's Commission on Achieving Necessary Skills (SCANS) has identified a set of personal characteristics that young people need in addition to workplace skills in order to succeed on the job. These qualities, also required to succeed in life, include (for example) demonstrating responsibility, punctuality and follow-through. The Task Force believes that schools can do a better job of preparing youth for work by adopting standards that will help students to develop these qualities. That should include setting and maintaining higher standards of behavior and attendance, both to improve educational performance and to introduce young people to the demands they will face at work. Young people accustomed to skipping school regularly often are shocked to learn that employers expect them to be at work every day and to call in if they are sick. School personnel do their best to get students to attend, but the whole community must work to change standards of behavior. Our youth will be better served if society supports the schools in setting and implementing standards of personal responsibility that reflect expectations in the "real world."

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Providing Information on Careers

Secondary school students currently lack clear pathways to adequate career information or options. There is no assurance they will have access to guidance services; an individual guidance counselor may be responsible for hundreds of students in a particular district, making it impossible to meet individual needs. Schools must offer objective information in a timely fashion that will allow youth to make informed decisions about their education and careers through expanded and pro-active guidance services and/or new occupational curriculum.

It is critically important that expectations for student progress, and information on career and educational alternatives, be offered free of gender bias. A growing body of research, including the recently published study by the American Association of University Women, ***How Schools Shortchange Girls***, emphasizes the importance of eliminating gender bias in expectations, instruction and opportunities in education. New York State must continue to work to eliminate bias as it opens up new career pathways for youth.

All high school students initially should work toward mastery of fundamental academics and work readiness skills.

New Pathways in Secondary School

Through elementary and middle grades, all students should receive a program of academics and work-related skills that lays the groundwork for secondary education. All high school students initially should work toward mastery of fundamental academics and work readiness skills. They should be expected to demonstrate mastery not through a single test, but by accumulating a portfolio or demonstrating their skills and knowledge over time. After demonstrating mastery of the fundamentals youth would branch out among a variety of educational pathways that would prepare them for gainful employment or higher education. These advanced pathways would lead to a high school diploma and, for those who choose, state-authorized professional and technical certificates.

Once youth have demonstrated initial mastery of fundamental academics and work skills, their individual goals and interests would influence the proportion of time devoted to a particular area of study.

Once youth have demonstrated initial mastery of fundamental academics and work skills, their individual goals and interests would influence the proportion of time devoted to a particular area of study. For example, consider the options open to a hypothetical student interested in architecture. She might pursue a course of study that includes a heavy schedule of academics, some technical courses, and a work experience in community service or in a field related to architecture. This pathway could lead directly to enrollment in a baccalaureate program. Or she might opt instead to pursue a heavier schedule of technical courses along with academics and a work experience, which could lead to employment as a design technician in an architect's office — and would leave her options open for continuing at some point toward a baccalaureate degree.

Flexible Options in High School

After earning a Career Pathways Certificate (CPC) that certifies mastery of rigorous academics and entry level work related skills, high school students would be able to pursue a variety of flexible career pathways. All pathways would include academics, technical and career-related education, and a work experience But an individual's goals and interests would dictate the proportion of time devoted to each component.

Student A, whose goal is to enter the work force immediately after high school:

Academics

Technical and career-related education

Work experience

Student B, whose goal is to be a graphic designer, with an intermediate goal of a 2-year college degree:

Academics

Technical and career-related education

Work experience

Student C, whose goal is to be a physician, with intermediate goals of a 4-year-college education and medical school.

Academics

Technical and career-related education

Work experience

All students would have a school-supervised work experience with the educational benefits of an internship.

FLEXIBILITY IS CRUCIAL

Because all students would pursue the same elements (academics, employability skills and a work experience) in different proportions, individuals would have maximum flexibility in building an educational program, including the option of continuing education past high school. Students would be able to transfer among different pathways as their interests dictate. Career pathways could be as specific as engineering or as general as science and technology. However, all pathways following mastery of fundamental skills would include a mix of academic courses, employability skills, technical or professional skills and a structured school-supervised work experience.

A WORK EXPERIENCE FOR ALL YOUTH

Work experiences for high school students should be structured, designed and supervised by the schools in conjunction with employers and labor. Such experiences should be designed to have significant educational content. Excellent youth apprenticeship programs, internship programs and entrepreneurship programs currently in existence can provide useful models.

"Work experiences" should be defined as hands-on opportunities for learning outside the school environment. While that might include paid, part-time jobs with educational components, work experiences typically also would encompass community service, volunteer work and other non-paying jobs.

The National Youth Apprenticeship Initiative of Jobs for the Future suggests elements that should be included:

- Work experience and guided learning opportunities provided by employers;
- A structured linkage among secondary and post-secondary learning environments;
- Close integration of academic and vocational learning, and of school and work place experiences, through ongoing collaboration among schools, employers, unions and other key institutions and through curriculum and teaching innovations.

Because all students would pursue the same elements (academics, employability skills and a work experience) in different proportions, individuals would have maximum flexibility in building an educational program.

THE LOGISTICS OF ARRANGING WORK EXPERIENCES

While the Task Force reached agreement early on that a work experience was important for all students, there were concerns over feasibility: could educational work experiences be provided for all students during what typically would be their junior or senior year of high school? Would the time needed for a work experience unrealistically overload student's schedules?

There is clearly a need for consistent standards, improved coordination of efforts and ultimately a system that provides meaningful work experience for all high school students.

In the first instance, the Task Force found that currently there are more than 181,000 young people (see Appendix B) already involved in some type of educational work experience in New York State under a wide variety of programs offered through several state agencies and the private sector. Some businesses in New York have invested heavily in certain work experience programs. However, the educational benefits of these experiences vary, and taken as a whole they do not constitute an organized or coordinated set of programs designed to satisfy the work training needs of all state youth. There is clearly a need for consistent standards, improved coordination of efforts and ultimately a system that provides meaningful work experience for all high school students. Nonetheless, the opportunities for educational work experience that already exist through numerous partnerships convince us that a coordinated, school-structured work experience feasibly could be provided as a component of high school education.

The Task Force also discussed concerns that a work experience would overload what some perceive as already crowded schedules for secondary school students. This issue goes to the very heart of what the Task Force is proposing. Simply put, Task Force members believe that a restructured system of education — proposed in the New Compact for Learning and delineated further in this report — must ***make*** time for work experiences. (Task Force members noted that certainly under the current system, requirements for local and even Regents diplomas typically do not overload a student's schedule, particularly in the senior year of high school when some youth have finished many of their diploma requirements.) In addition, flexible scheduling could allow on-the-job experiences to be incorporated into a student's after-school job or summer work. Special arrangements might need to be made for youth in rural areas or other places where it may be more difficult to arrange work experiences and for youth with family care-giving responsibilities.

The Task Force believes providing an educational work experience for all young people is both possible and necessary. Unquestionably, such an undertaking would require extensive coordination with and participation by the private sector, governmental agencies, not-for-profit organizations, volunteer and charitable organizations, institutions of higher education and other organizations where young people could work and learn. The state and localities will need to develop a system to inform and engage employers in the process. Leaders from the private and public sector must commit to securing widespread and sustained employer involvement in public education.

WHO NEEDS A WORK EXPERIENCE?

To begin to teach students what is required of them outside an academic setting, the Task Force believes ***all*** youth should have career information, employability skills, and a work experience incorporated into their secondary education. It is hard to imagine an occupation that does not call upon the work-related skills and attitudes described in the SCANS competencies. A student planning on advanced academic study might devote only a small proportion of secondary school studies to work-related education, but nonetheless would benefit from gaining employability skills. A young person considering a career in medicine, for instance, would benefit from learning how to communicate with others and be an effective leader, select and use technology and analyze data. On a practical level, she or he would need to know how to use computers. A work experience in a hospital or doctor's office would provide an understanding of real-life challenges in medicine.

The concept of an academic track or a vocational track should be abandoned since all pathways will include vocational/ occupational and academic elements.

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RECOMMENDATION #4: *New York State should institute three benchmarks that will certify young people have successfully demonstrated skills or content knowledge according to clearly defined world-class standards:*

CAREER PATHWAYS CERTIFICATE

A Career Pathways Certificate (CPC) should be instituted to certify mastery at a world-class level of the fundamental academics and work-readiness skills needed for entry to the workplace and continuing education.

The standards for earning a CPC should be the same for all. We recognize that some youth may need additional support in reaching CPC standards — but for the certificate to have meaning, the standards it represents must be the same for all, including adult learners.

A Career Pathways Certificate (CPC) should be instituted to certify mastery at a world-class level of the fundamental academics and work-readiness skills needed for entry to the workplace and continuing education. The standards for earning a CPC should be the same for all.

Just as scouts earn merit badges by demonstrating accomplishments in stages, youth would work toward a CPC by accumulating and demonstrating skills and knowledge in a continuing progression. The CPC should not be awarded for time spent in school, but instead should certify genuine mastery of defined skills and content knowledge.

The length of time it would take to earn a CPC would vary based on an individual's rate of progress; students might earn a Career Pathways Certificate at different ages and stages of their school career. Typically many youth would earn a CPC at or about age 16, but some would receive it earlier and others would take longer. The level of mastery of academics required to earn a Careers Pathways Certificate should greatly exceed the less-than-rigorous standards now in place for a local diploma. In addition, the CPC would require mastery of job-related skills (such as those identified in Appendix C) that to date have not been included in most youths' education.

The Career Pathways Certificate must not be portrayed as a "leaving" certificate that signals student readiness to exit school. While the job skills and rigorous academics required to earn a CPC would stand young people in good stead for part-time or summer employment, education beyond a CPC will be necessary to equip young people as citizens and to give them a chance at jobs with a future. Beyond the CPC, and in addition to the high school diploma, young people need advanced and specialized training to equip them for the workplace. Consequently, the CPC should serve as a stepping-stone to new and necessary pathways in secondary education, including advanced academics, additional training in workplace skills, professional and technical education and a school structured work experience.

New York State Should Institute New Benchmarks to Certify Mastery of Skills and Knowledge to World-Class Levels

Careers Pathways Certificate (CPC)

- Would certify mastery of rigorous academics and work-readiness skills to world class levels
- Youth would work toward a CPC at their own pace (typically many might earn it at or about age 16)
- CPC would serve as a stepping stone to flexible pathways in secondary education
- Level of academic mastery would greatly exceed the less than rigorous standards now in place for local high school diplomas
- Public schools would be providers of CPC preparation

High School Diploma

- Would certify mastery beyond the CPC of advanced academics and work-related skills to world-class standards
- All students would be required to complete a school-structured work experience
- Flexible pathways would allow students to pursue academics and work-related education in varying proportions

Professional and Technical Certificates (PTC)

- Would certify mastery of advanced skills and knowledge in particular fields to world-class standards
- There should be a range of PTCs for broad occupational areas or clusters not currently licensed by NYS
- Youth would work toward a PTC at their own pace
- Many PTCs would require post-high school training
- PTCs could be earned at a variety of sites

College Degrees

- Flexible pathways would encourage lifelong learning. High school graduates and those earning PTCs would be prepared to continue post-secondary education
- PTC pathways would provide opportunities for college graduates seeking training or a career change

THE HIGH SCHOOL DIPLOMA

A high school diploma should be the benchmark following a Career Pathways Certificate. It should be awarded not for attendance but for demonstrated mastery beyond the CPC of advanced academics and workplace skills. Instruction leading to a high school diploma should allow young people flexibility in pursuing a variety of career pathways and should include a school-supervised work requirement for all students. The Board of Regents may wish to assess the current state system of granting diplomas in light of the changed expectations and education recommended in this report.

A high school diploma should be the benchmark following a Career Pathways Certificate. It should be awarded not for attendance but for demonstrated mastery beyond the CPC of advanced academics and workplace skills.

PROFESSIONAL AND TECHNICAL CERTIFICATES

New York State should institute a non-baccalaureate system of Professional and Technical Certificates (PTCs) that would certify mastery of advanced skills and knowledge in particular fields. Creating a system of Professional and Technical Certificates would provide many new career opportunities for young people to expand their knowledge and skills both in high school and after graduation. The PTC would be a dynamic measure of a globally competitive worker and would signify that the worker has all the skills and qualities needed to be among the best workers in the world. It would be awarded to those who have demonstrated their CPC competencies, completed their high school requirements and met world-class standards in a specific occupational area of professional or technical certification. In some fields, there might be a series of Professional and Technical Certificates, ranging from initial certification in a field to increasingly advanced mastery.

Creating a system of Professional and Technical Certificates would provide many new career opportunities for young people to expand their knowledge and skills both in high school and after graduation.

Unlike the Career Pathways Certificate, which would be a single certificate attesting to mastery of fundamental skills and knowledge, there should be a range of Professional and Technical Certificates for broad occupational areas and clusters not currently licensed by New York State.

The time needed to earn a PTC would vary depending on an individual's rate of progress and the rigor and depth of requirements in a particular field. Many students would begin in high school to develop the knowledge, skills and competencies needed to earn a PTC. Some might pursue an intensive occupational education pathway during high school that would allow them to earn a PTC concurrently with

high school graduation. More typically, youth would continue to work toward a PTC after high school, perhaps in a tech-prep program (two years of high school occupational education and two years at a community college) or in a program designed by a specific company or union to offer education and experience leading to a PTC. Youth apprenticeship programs and youth entrepreneurship programs also could serve as pathways to a Professional and Technical Certificate (PTC).

The time needed to earn a PTC would vary depending on an individual's rate of progress and the rigor and depth of requirements in a particular field.

While public elementary and secondary schools would be the providers of education for a Career Pathways Certificate (with alternative learning environments for dropouts -- see Recommendation #8), youth would be able to earn Professional and Technical Certificates at a variety of sites, such as: public schools, community colleges and other institutions of higher education, Board of Cooperative Educational Services (BOCES) centers, qualified proprietary schools, not-for-profit training agencies, community-based organizations and through employer-sponsored or labor union training. This would necessitate coordination among a range of state agencies.

PTC pathways could provide valuable options for young people who start college and leave, for college graduates who are unable to find suitable employment and for adults of all ages who for a variety of reasons seek a career change.

Society must be energized to accept a new paradigm: one where preparation never ends, one where dropping out is unthinkable and one where everyone who completes high school will have quality options, and a variety of choices in careers and education.

As holders of PTCs join the workforce, these professional and technical certificates will have established value, not only for employers, but also for school-age youth who will see the opportunity to earn a PTC as an incentive for continued education. Providing clear career pathways through the PTCs will encourage more youth to stay in school, offer incentive for drop-outs to continue their education and expand options for high school graduates. The connection between quality education and quality jobs will become clear.

Society must be energized to accept a new paradigm: one where preparation never ends, one where dropping out is unthinkable and one where everyone who completes high school will have quality options, and a variety of choices in careers and education.

The world-class standards for PTC should be developed, and revised and updated as needed, by a standards board comprised of a majority of business and organized labor (see Recommendation #10).

ASSESSING STUDENT PERFORMANCE

New York State must institute valid, credible assessments for attainment of a Career Pathways Certificate, high school diploma and Professional and Technical Certificates. The Task Force supports the adoption of authentic assessments, such as student performances, portfolios, projects or demonstrations of knowledge and skills.

STANDARDS FOR DISABLED YOUTH

Special education programs for students with disabilities should be designed to help them make progress toward earning a Career Pathways Certificate and subsequent benchmarks of performance. Students receiving special education should be educated to the same set of world-class standards as other students if educators and employers are to value their participation in post-secondary opportunities.

While it is anticipated that many students will earn a CPC by age 16, some youth, including a number with learning disabilities, may take longer or need other accommodations to achieve CPC standards. This might include support services or accommodations that provide students with the opportunity to demonstrate their skills and knowledge without being limited or unfairly restricted by their disability. Including all students in Career Pathways initiatives will provide positive avenues for students with disabilities.

The CPC will require youth to demonstrate a range of skills, including many that will be employment based and developed through work experience. Transition services will be critical to allow students with disabilities to successfully participate in work-related activities. Students will be able to follow their Individualized Education Plan to move toward a Career Pathways Certificate at their own pace.

RECOMMENDATION #5: *Public education must be restructured to create environments that foster development of the thinking and problem-solving skills young people will need to succeed in careers and in life.*

Even as Task Force members agreed on the need for higher standards both in academics and in workplace skills, we wrestled with the realities of introducing new demands on the school system. How

would it be possible to help young people reach academic standards that are ***higher*** than under the current system? How could we find the time to introduce career information and work-related programs into what some see as an already over-loaded school system?

For all to reach higher standards, we must change the way we educate young people — to use what research has shown us about the best ways of helping children learn. The diversity of New York State youth that so enriches our state also adds to the challenge of education, since children come from a wide range of social, economic and cultural backgrounds. Traditional schooling — a single formula of education for all students — doesn't address what research has shown us about the way children learn. As the Regents' New Compact for Learning makes clear, we must restructure schools to create an environment where learning can take place, not just for those who respond well to the traditional modes of instruction, but also for the large number who may be better served by a greater variety of approaches. To make this restructuring happen, we must make sure that our schools have the resources they need to create environments where all children can learn.

For all to reach higher standards, we must change the way we educate young people — to use what research has shown us about the best ways of helping children learn.

LEARNING IN A "REAL-LIFE" CONTEXT

The way youth learn in a traditionally structured school is very different from how they learn in "real life" — daily life and work experiences. Four gaps between classroom and real life have been identified by researchers, including Task Force member Sue Berryman, who is director of the Institute on Education and the Economy at Teachers College, Columbia University. Those gaps include:

- School focuses on individual performance; non-school settings emphasize socially shared performance.
- Schools expect students to come up with answers unaided; at work, particularly in high skill occupations, employees are allowed and encouraged to use information and cognitive tools.
- Schools emphasize symbolic thinking; other settings require young people to solve problems relating to real-life objects and situations.

- Schools seek to impart general skills through knowledge. In the workplace, knowledge and skills are linked to a particular situation.

According to Task Force member Paul F. Cole, who is Secretary-Treasurer of the New York State AFL-CIO and a former teacher: "These research findings challenge the traditional formal approach to instruction that has caused artificial distinctions between knowing and doing, education and training, academic and vocational education and school-based and work-based learning." Schools must reject such artificial distinctions to allow learning to occur within a real-life context.

Restructured schools that focus on the needs and progress of our youth can provide an environment for achieving the over-arching goals of the Regents' New Compact for Learning and the specific goals contained in this report.

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An Example of "Real-Life" Learning

What might restructuring mean in real-life terms? Consider two examples involving a group of sixth-graders. In traditional schooling, each student is expected to prepare an individual report on a foreign nation. Students work in isolation, compete with each other for grades, and receive feedback only once in terms of a letter grade on their reports.

In restructured schools, students on a team might work together to research a foreign country and prepare both written and oral presentations. The teacher would set standards and serve as guide, resource and editor. Students would collaborate with each other to locate research material and distill the information. Teamwork would be required. Students would give an oral summary of their work, demonstrating they can distill and analyze the information they gathered. There would be an opportunity for further revisions after teacher and class feed-back on the project.

In both examples, young people are acquiring academic knowledge and research skills. But the second set of circumstances offers a situation comparable to that in a "high performance" workplace. There employees typically collaborate, rather than compete, brainstorm ideas, consult with their supervisor throughout a project, receive constructive feedback, retool and improve their work and develop and use listening and speaking skills.

Learning that takes place within a real-life context would allow workplace skills to be incorporated as an integral part of schooling. The Task Force believes restructured schools will be a better environment for learning — and will allow us to reach the significant goals of strengthened academic preparation and workforce readiness.

Extensive Inservice and Preservice Training Will Be Needed

The significant reforms we envision in public education will require an extensive program of training for school personnel, including inservice training for those currently employed in the schools and preservice training for prospective educators.

Inservice training should be provided for school staff — including, but not limited to teachers, guidance counselors, paraprofessionals, principals and other personnel. Three major challenges will need to be incorporated into this training: the new experience of working closely with employers and labor in preparing youth for work, changes in the way students are educated that will help all to learn and the incorporation of work readiness skills and career information into the curriculum for kindergarten up. In addition, on-the-job training experiences for teachers and guidance counselors should be considered as one way to help forge understanding and cooperation between schools and employers.

Schools of education will play a critical role in providing preservice training for prospective educators. They will need to assess and strengthen their programs in light of the new directions in public education and the resulting expectations of teachers, guidance counselors, principals and others.

Learning that takes place within a real-life context would allow workplace skills to be incorporated as an integral part of schooling.

The significant reforms we envision in public education will require an extensive program of training for school personnel.

The Role of Higher Education

In addition to their role in educating school personnel, colleges and universities necessarily will be affected in other ways by the changes we make in public education from kindergarten through grade 12. Higher education will welcome the introduction of more rigorous standards for student performance. A recent survey shows that an overwhelming number of college educators feel too many students are not adequately prepared for the demands of higher education. Higher education faculty should play a part in developing new standards for students K-12 since they are charged with the further education of graduates of our public schools. In addition, colleges and universities may need to respond to the increased standards of performance for

K-12 students by discussing post-secondary education standards with their public schools colleagues, employers and labor and by assessing and modifying college curriculum and instruction where appropriate.

Higher education should play an ongoing role in the research and evaluation that must accompany our changes in public education.

Higher education should play an ongoing role in the research and evaluation that must accompany our changes in public education.

RECOMMENDATION #6: *New state standards should be phased in over time to ensure students have fair and equal opportunities to meet the standards.*

Too many young people compete on an unlevel playing field caused by a wide variance in educational resources statewide. Some youth are challenged by disabilities, societal stereotyping or other life circumstances. We cannot expect young people to meet higher standards until schools and employers first provide the education, training and resources they need to be prepared. A phase-in period will be needed to give students the time necessary to reach higher standards. We cannot suddenly impose new standards and requirements on 15-year-olds educated in the current system. The phase-in must be accompanied by extra help and support for those who need it. Every step of the way, we must ensure young people are not given new expectations in a vacuum, but instead receive the support they may need to succeed.

We cannot expect young people to meet higher standards until schools and employers first provide the education, training and resources they need to be prepared. A phase-in period will be needed to give students the time necessary to reach higher standards.

RECOMMENDATION #7: *Employers and labor unions should be active participants in all phases of developing and implementing new career pathways for youth.*

To bridge the historic separation between the schoolroom and the workplace, employers and labor must be fully involved in the process of preparing youth for work. Involvement by employers and labor should include:

- Helping to advise the Regents on the standards of student performance needed for success on the job, including work readiness requirements for attaining a CPC;

- Serving on a Professional and Technical Standards Board (see Recommendation #10) to set standards for entry level jobs in a range of occupations;

- Establishing partnerships with schools to structure educational work experiences for secondary school students who have earned a CPC;

- Helping students who must work before they have earned a CPC to stay connected to education by providing flexible hours or other accommodations they may need to continue progressing toward Career Pathways certification.

In order to enlist employers and labor unions as participants in helping strengthen career-related education, we will need an extensive information campaign by the state that involves leaders from the workplace in creating a permanent system for connecting school with work.

RECOMMENDATION #8: *Multiple learning environments should be designated to provide instruction leading to a CPC for youth who have dropped out of the public schools — even as we commit to reducing the number of students who leave school to zero from current levels. Alternative learning environments also should be designated to provide instruction leading to a CPC for adults.*

A commitment to excellence and equity requires us to provide a strong system of alternative learning environments for those who drop out of the public schools.

A commitment to excellence ***and*** equity requires us to provide a strong system of alternative learning environments for those who drop out of the public schools. (We believe that as schools are restructured to better meet students' needs, and to offer meaningful and relevant courses of study, the number of dropouts will be significantly reduced, but we will continue to need alternative learning environments for a number of youth.) While these environments will offer different approaches to learning, or a longer timetable for reaching benchmarks, the standards used for assessing progress toward a Career Pathways Certificate or high school diploma must be the same statewide.

It may be necessary for alternative learning sites to provide support services to accommodate the needs of youth, such as teen parents, who have dropped out because of family care responsibilities. Support services could include, but not be limited to, day care, counseling, transportation, mentoring and assistance in obtaining housing.

For any approved alternative learning sites, the state should provide supervision, technical assistance and funding to program providers serving individuals who have dropped out of school but need

an alternative route to the CPC. Alternative learning environments could be contained within the traditional school as a separate entity or may include programs such as those offered by the Boards of Cooperative Educational Services; institutions of higher education; Adult Learning Centers; Education Opportunity Centers; Private Industry Councils; community-based or other not-for-profit organizations; public agencies; a consortium of these agencies, perhaps with business/industry affiliates; and labor union apprentice programs and the proposed Skills Opportunity Centers.

SKILLS OPPORTUNITY CENTERS

Governor Mario Cuomo has proposed establishing Skills Opportunity Centers to provide instruction and support for youth ages 16-21 who have left school without a high school diploma. These alternative learning environments would offer an integrated program of high school academic instruction, basic skills instruction, and employment preparation services. Educational strategies would be tailored to individual needs. The proposed centers would be governed by policy boards with representatives of business, labor, community organizations and the public. Such centers would be patterned after programs for dropouts which have proven successful in Europe and were recommended in the ***America's Choice*** report.

*We want to ensure that even while youth are working, they retain a **connection to education** that at the very least will ensure they have the fundamental skills and knowledge they need to prevent work from becoming a dead-end.*

RECOMMENDATION #9: *Youth who wish to work before the age of 18 should have earned a CPC or be enrolled in a program leading toward a CPC, subject to the establishment of a strong and flexible system of support that would allow youth to remain connected to education even if they drop out of school.*

The intent of this recommendation is not to prohibit young people from working; we recognize that many young people must work for their own or their family's economic survival. Instead, we want to ensure that even while youth are working, they retain a ***connection to education*** that at the very least will ensure they have the fundamental skills and knowledge they need to prevent work from becoming a dead-end.

In extensive debate over this issue, Task Force members expressed concern that establishing the CPC (or schooling leading to a CPC) as a precondition for employment could have the unintended effect of propelling some drop-outs into "underground" or illegal employment if they were unable to deal with school and a job at the same time. This clearly would be a disaster.

Yet at the same time, the Task Force felt that youth too often see no connection between effort at school and opportunities in the workplace. Except for those who seek entrance to a competitive college, there currently is little incentive for students to work hard in school. Employers typically do not consider a student's grades or transcript in making hiring decisions or setting pay scales. The Commission on the Skills of the American Workforce notes that at the national level, "90 percent of employers surveyed ignore high school diplomas, believing graduates to be no better qualified than dropouts, and 98 percent never examine high school transcripts, believing the course work to be irrelevant to their needs."

We need to connect effort and performance in school with real-life rewards and opportunities. If young people knew they had to earn a CPC or be working toward it to hold a job before age 18 — if they knew employers valued the CPC — the certificate would have real meaning.

How, then, can we connect the CPC to work in a meaningful way without driving youth into underground employment? Our main concern is for drop-outs (students enrolled in school would be eligible for employment since they would be working toward a CPC). The Task Force believes the answer is to develop a strong and flexible network of support that would make it possible for young people to stay connected to the school system even if they drop out to work full-time. Therefore, while we recommend linking the CPC (or enrollment in a program leading to a CPC) with the right to work before age 18, this linkage must not be made until the following conditions are also met:

If young people knew they had to earn a CPC or be working toward it to hold a job before age 18 — if they knew employers valued the CPC — the certificate would have real meaning.

- There must be an adequate phase-in period that establishes the credibility of the Career Pathways Certificate as a reliable benchmark for work readiness. It must have value to employers as a meaningful certificate pegged to clearly identified world-class standards.

- We must develop flexible and creative ways for youth to continue working toward a CPC even if economic necessity forces them to drop-out to work full-time. One possible model is the Dropout Recovery program instituted more than three years ago in the Sweetwater Union High School District in San Diego, California.

Employers and labor must work in partnership with the schools to establish the CPC as a meaningful certificate and to encourage and assist young people to continue their education.

Flexible scheduling is a key component of the program; young people can work full time and still receive an education, since the school operates from 7 a.m. until 10 p.m. and allows students to attend in flexible two-hour blocks. Of the most recent group of graduates, approximately 60 percent have enrolled in college.

- Schools must coordinate with social services and other agencies to ensure a network of services that may be needed to keep young people progressing toward a Career Pathways Certificate. For instance, some may need help with childcare in order to continue their education.

- Employers and labor must work in partnership with the schools to establish the CPC as a meaningful certificate and to encourage and assist young people to continue their education. This might include flexible scheduling or helping to coordinate on-the-job experience with education leading to a CPC.

GOVERNANCE

RECOMMENDATION #10: *The state Curriculum and Assessment Council should be established as a permanent entity that would serve as a standards board to advise the Regents on the standards for attainment of a Career Pathways Certificate; the Council's membership should be amended as necessary to include representation from employers and labor who can provide perspective on the skills and education needed to succeed in the workplace. In addition, the state should establish a New York State Professional and Technical (PT) Standards Board charged with designing and implementing a statewide system of professional and technical performance standards for entry-level jobs in a range of occupations and trades.*

While we believe the Curriculum and Assessment Council is the appropriate body to advise the Regents on standards for achieving the CPC, we recommend that its membership be amended to include significant representation from business and organized labor.

SETTING STANDARDS FOR THE CAREER PATHWAYS CERTIFICATE

The Curriculum and Assessment Council was established by the Board of Regents to develop new, comprehensive standards and a system of valid and reliable assessments for New York State youth. That work is currently underway. The recommendations contained in this report will help give shape to the Council's efforts, particularly in the area of preparing young people for the workforce. While we believe the Curriculum and Assessment Council is the appropriate

body to advise the Regents on standards for achieving the CPC, we recommend that its membership be amended to include significant representation from business and organized labor whose perspectives will be crucial in developing standards for satisfactory performance on the job.

Setting Standards for Professional and Technical Certificates

Professional and Technical Certificates will recognize student mastery according to industry standards in a broad range of occupational areas or clusters. Because New York State has no comprehensive system of certifying professional and technical expertise apart from licensed professions, occupations and trades, and the associate degree requirements, we are recommending the creation of a New York State Professional and Technical Standards Board to design and implement a system of world-class standards for jobs in a wide range of occupations and trades, and to award Professional and Technical Certificates (PTC) to individuals meeting these internationally competitive standards. Professional and Technical Certificates will incorporate the standards for a high school diploma set by the Board of Regents along with specific standards for an occupational area (see Recommendation #4).

We are recommending the creation of a New York State Professional and Technical Standards Board to design and implement a system of world-class standards for jobs in a wide range of occupations and trades.

The Professional and Technical Standards Board would define a system of standards that, taken together, would:

- Prepare youth and adults for work in high performance organizations, including services and manufacturing;
- Cover the majority of occupations not requiring a four-year college degree (other than those already licensed by New York State);
- Reflect the academic and work-related skills required;
- Combine school work with structured, on-the-job training;
- Balance the need for job preparation with the need for career choice and mobility among occupations.

The board would set the standard for PTCs, whether they are earned through schools, colleges or in non-traditional sites such as on-the-job. Just as industry standards change and progress over time,

so too, should PTC standards be updated and revised as needed to ensure relevance and currency. Whenever possible, the PT Board should save time and money by recognizing high standards that have already been established in certain fields and tapping existing expertise in all sectors: public, private and not-for-profit.

It should not be within the board's purview to prescribe the curriculum or programs of study leading to PTCs. While the board should decide the standards for earnings PTCs, those who provide education and training will be responsible for determining how best to help students meet those standards.

The board would make no attempt to function as a labor market mechanism by arbitrarily controlling entrance to a field through control of standards. Standards for certification would be benchmarked to world-class standards and would not be tied to issues of labor supply or demand. The board must recognize congressional action on civil rights by linking credentials to performance on the job.

The PT Standards Board should monitor the development of work readiness standards at the national level and elsewhere, and build upon them as appropriate.

The Professional and Technical Standards Board should not attempt to set standards for each of the 10,000 separate occupations listed in the Directory of Occupational Titles. Instead, the board should develop categories or clusters that encompass a number of specific occupations. For example, rather than defining separate standards for the jobs of receptionist or word processor or clerk, the board might create a certificate for secretarial/office staff. Setting up broad categories of occupations enables students and workers to acquire transferrable skills that would allow them to change careers without starting over. The system should be defined with no "dead-ends," so that those receiving PTCs would be prepared to continue their education to qualify for jobs requiring baccalaureate and post-secondary degrees.

MEMBERSHIP OF THE PT STANDARDS BOARD

Members of the Professional and Technical Standards Board should be appointed by the Governor, with the majority of members representing business and organized labor. The Chancellor of the Board of Regents and the state Commissioner of Education should serve on the PT Standards Board to ensure coordination with the Board of Regents which sets standards for the high school diploma. To ensure coordination between standards for Career Pathways Certificate and the Professional and Technical Certificates, two members of the PT Standards Board should also serve on the Curriculum and

Assessment Council, which will advise the Regents on standards for the CPC.

The Board of Regents, the Curriculum and Assessment Council, and the Professional and Technical Standards Board should meet periodically to further ensure coordination of policies.

It will be crucial that membership on the board be comprised of a majority of business and organized labor with the expertise needed to define standards for a range of occupations. For instance, the PT Board could look to the traditional registered apprenticeship system for establishing a process for setting world-class standards; both the New York State AFL-CIO and the New York State Building and Construction Trades Council could provide guidance and advice on this process.

The PT Standards Board should receive a legislative appropriation for its operation and staffing. As appropriate, it should establish committees comprised of business and labor representatives with expertise in specific fields who could advise on standards and requirements for specific Professional and Technical Certificates. The Board should monitor the development of work readiness standards at the national level and elsewhere, and build upon them as appropriate in establishing new benchmarks for New York State. Some of the groundwork for our new standards for work readiness already has been laid in promising initiatives now underway. The Standards Board should, when possible, incorporate these initiatives to limit the costs of a start-up effort.

Too many youth are being short-changed by a system that fails to guarantee adequate funding for public education in all communities in New York State. It is a travesty that some schools lack safe facilities or enough books for each student. We must redress inequity in funding.

FUNDING

RECOMMENDATION #11: *New York State should provide funding for implementing new career pathways that will ensure all youth have equal opportunities to learn.*

The Task Force endorses ***Funding for Fairness***, a report of the Temporary State Commission on the Distribution of State Aid to Local School Districts. The Commission, chaired by Fred V. Salerno, found that the current system of funding New York State schools is inequitable, resulting in great disparity among school districts, and recommended changes to improve equity.

Too many youth particularly in our cities, are being short-changed by a system that fails to guarantee adequate funding for public education in all communities in New York State. It is a travesty that some schools in New York lack safe facilities or enough books for each student. We must redress inequity in funding where it exists.

In addition to requiring fundamental fairness in the way we supply resources for schools, we must note that there will be some specific start-up costs in creating new career pathways, which will include resources for curriculum development, inservice training for school personnel, development of authentic measures of student performance and the institution of work-related experiences for all secondary students.

VI. Implementation

This Task Force was not charged with implementing its recommendations. The Regents, State Departments of Labor, Economic Development, Education, Social Services and Corrections, the State Division for Youth and the Job Training Partnership Council all are responsible for segments of the solution to this problem. There necessarily is a need to coordinate these efforts. State agencies will need to work in unison to help make needed changes in workforce preparation. This gargantuan undertaking will likewise require sustained commitment and effort on the part of employers and organized labor, educators, parents, community members, governmental leaders and not-for-profit agencies. It is truly an enterprise that affects the entire community. Implementation will require action by the Governor, Legislature and the Board of Regents. The Task Force recommends the following schedule:

- Regents revise membership of the Curriculum and Assessment Council to add representatives of business and organized labor with the appropriate expertise to help establish work-related competencies by December, 1992.

- Career Pathways Certificate (CPC) competencies and new high school diploma standards are developed by the Curriculum and Assessment Council and approved by the Regents by September, 1995.

- Legislation is prepared by the Governor and acted on by the Legislature to establish the Professional and Technical Standards Board by January, 1993.

- A budget for the Professional and Technical Standards Board is submitted to the Legislature by the Governor by January, 1993.

- Cost estimates to implement the Task Force's recommendations are prepared by the Regents by September, 1992.

- Budgets incorporating funding to implement Task Force recommendations are submitted annually by the Governor to the Legislature beginning in January, 1993.

The Task Force on Creating Career Pathways for New York State Youth believes that a new system of schooling must be underway by the time next fall's sixth-graders — the high school Class of 1999 — are ready to begin high school.

Additionally, we want to note the importance of ongoing research and development as we move to a new system of instruction. Although we know a great deal about effective teaching practices, we must monitor the process of moving schools from ineffective to effective practices as we introduce comprehensive, multi-faceted changes. We need to build research into the restructuring process as a means of both guiding and learning from that process.

Effective and timely action is needed to make these recommendations reality. For almost a decade, a "nation at risk" has analyzed, studied and discussed public education. Now New York State must act to address the needs of our youth. The Task Force on Creating Career Pathways for New York State Youth believes that a new system of schooling must be underway by the time next fall's sixth-graders — the high school Class of 1999 — are ready to begin high school.

Appendix A:

EXAMPLES OF WORK AND SCHOOL TRANSITIONS

At the national level, several states have begun to structure closer linkages between school and work:

- Oregon has enacted legislation which revises curriculum to coordinate employment training and school-to-work transitions. It also establishes certificates based on outcomes benchmarked to work class standards.

- California is moving toward comprehensive reform of schools which includes organization around career fields. Each student would have a personal learning plan, leading to post-secondary education or the workforce.

- Florida has established a plan to relate curriculum to careers and integrate academic and vocational instruction. Youth and adults would be prepared to begin a career and continue their education.

- Ohio has developed a "Career Passport" that helps employers evaluate a student's skill related to employment. The credential includes academic and work skills, assessment, work/community experience, diplomas, certificates, business/industry credentials and goals for continuing education and training.

- Various states offer work related experiences in which more than 25 percent of the instructional program occurs in a workplace. Cooperative education programs are offered in 29 states, youth apprenticeship in 12 states, internships in 8 states, alternative high schools in 7 states, career academics in 3 states and youth enterprises in 2 states.

- The Southern Regional Education Board directs a project to strengthen the basic competencies of vocational students. Through various activities across 18 states, the consortium has successfully raised the competencies of all high school students in basic and work related skills.

- Pittsburgh has eliminated the general education track and offers youth either an academic or vocational option. The dropout rate is the lowest in the country, and is attributed to engaging youth in career opportunities and an emphasis on learning transferable skills.

At the local level, a number of initiatives are providing examples of alternative career pathways which incorporate school to work transitions:

- Rochester has proposed revising its curriculum to link academic and work standards. School performance would be tied to meaningful careers and advanced academic opportunities.

- CSD #9 -- New York City is revising its curriculum to incorporate work-based outcomes into its instructional program. This work draws on SCANS, and incorporates work-related outcomes into the academic program.

- Broome County and Cornell University have established an apprenticeship program to provide students with work experience and closely related academics. This offers an alternative career pathway to secondary students.

- Fourteen "Tech-Prep" planning and demonstration grants have been provided to local education agencies. The grants promote articulation between secondary and post-secondary agencies with other agencies delivering occupational education, continuing education, employment and training programs and other human services related to obtaining employment.

- The Yonkers City School District offers career education in some K-6 schools through career themes infused into content areas. Hands-on activities that help students understand various occupations and the skills necessary for success are actively supported by business and industry. The district, through linkages with business, industry and post-secondary institutions, also provides students with entry level work skills and direct work experience that prepare students for careers in various areas. The Academy of Finance, a school within a school for the finance profession, and the Electrical Technology, a "pre-engineering" program with Westchester Community Colleges are examples of this approach.

- Cardozo High School in Queens provides students with exposure and in-depth experience in career areas of law and public service. Law firms and public agencies support school and work-based experiences which provide students with in-depth activities as they consider careers in these fields.

- Academies, or schools within a school, that often serve youth who are disenchanted with traditional educational programs, exist in many cities across the country. They link hands-on work experiences with academic curriculum, and engage youth in a career-oriented community that builds self confidence and career opportunities.

Compiled by Peter Cooke of the State Education Department

Appendix B:

NEW YORK STATE EDUCATION AND TRAINING-RELATED WORK EXPERIENCE PARTICIPANTS FOR YOUTH, 1991-1992

EDUCATION-RELATED WORK EXPERIENCE PARTICIPANTS*	**64,000**
Cooperative Education Enrollments	14,000
General Work Experience & Career Exploration	4,000
Alternative School/Program Enrollments:	
New York City	35,000
Rest of New York State	11,000
TRAINING-RELATED WORK EXPERIENCE PARTICIPANTS	**117,000**
Job Training Partnership Act Summer Youth Employment & Training Program (Statewide)	44,000
New York City-funded Summer Work Experience Jobs for Youth	2,500
State-funded Youth Employment Program Work Experience Participants*	3,500
New York City Partnership Summer Jobs Program for Youth	45,000
Governor's School & Business Alliance Program Participants in Work Experience*	21,000
SUNY\CUNY Youth Internship Program Participants*	1,000
TOTAL WORK EXPERIENCE PARTICIPANTS	**181,000**

*Estimated

Data compiled by NYS Job Training Partnership Council, June 1992.

Appendix C:

WORK-RELATED SKILLS

Following are the foundation skills and competencies that the Secretary's Commission on Achieving Necessary Skills (SCANS) of the U.S. Department of Labor has identified as critical for today's workplace.

A THREE-PART FOUNDATION

Basic Skills: Reads, writes, performs arithmetic and mathematical operations, listens and speaks

- Reading — locates understands, and interprets written information in prose and in documents such as manuals, graphs and schedules
- Writing — communicates thoughts, ideas, information, and messages in writing; and creates documents such as letters, directions, manuals, reports, graphs and flow charts
- Arithmetic/Mathematics -- performs basic computations and approaches practical problems by choosing appropriately from a variety of mathematical techniques
- Listening -- receives, attends to, interprets, and responds to verbal messages and other cues
- Speaking -- organizes ideas and communicates orally

Thinking Skills: Thinks creatively, makes decisions, solves problems, visualizes, knows how to learn, and reasons

- Creative Thinking -- generates new ideas
- Decision Making -- specifies goals and constraints, generates alternatives, considers risks, and evaluates and chooses best alternative
- Problem Solving -- recognizes problems and devises and implements plan of action
- Seeing Things in the Mind's Eye -- organizes and processes symbols, pictures, graphs, objects, and other information

- Knowing How to Learn -- uses efficient learning techniques to acquire and apply new knowledge and skills

- Reasoning -- discovers a rule or principle underlying the relationship between two or more objects and applies it when solving a problem

Personal Qualities: Displays responsibility, self-esteem, sociability, self-management, and integrity and honesty

- Responsibility -- exerts a high level of effort and perseveres towards goal attainment

- Self-Esteem -- believes in own self-worth and maintains a positive view of self

- Sociability -- demonstrates understanding, friendliness, adaptability, empathy, and politeness in group settings

- Self-Management -- assesses self accurately, sets personal goals, monitors progress, and exhibits self-control

- Integrity/Honesty -- chooses ethical courses of action

FIVE COMPETENCIES

Resources: Identifies, organizes, plans and allocates resources

- Time -- Selects goal-relevant activities, ranks them, allocates time, and prepares and follows schedules

- Money -- Uses or prepares budgets, makes forecasts, keeps records and makes adjustments to meet objectives

- Material and Facilities -- Acquires, stores, allocates, and uses materials or space efficiently

- Human Resources -- Assesses skills and distributes work accordingly, evaluates performance and provides feed-back

Interpersonal: Works with others

- Participates as Member of the Team -- contributes to group effort

- Teaches Others New Skills

- Serves Clients/Customers -- works to satisfy customers' expectations
- Exercises Leadership -- communicates ideas to justify position, persuades and convinces others, responsibly challenges existing procedures and policies
- Negotiates -- works toward agreements involving exchange of resources, resolves divergent interests
- Works with diversity -- works well with men and women from diverse backgrounds

Information: Acquires and uses information

- Acquires and Evaluates Information
- Organizes and Maintains Information
- Interprets and Communicates Information
- Uses Computers to Process Information

Systems: Understands complex inter-relationships

- Understands Systems -- knows how social, organizational, and technological system work and operates effectively with them
- Monitors and Corrects Performance -- distinguishes trends, predicts impacts on system operations, diagnoses deviations in systems' performance and corrects malfunctions
- Improves or Designs Systems -- suggests modifications to existing systems and develops new or alternative systems to improve performance

Technology: Works with a variety of technologies

- Selects Technology -- chooses procedures. tools or equipment including computers and related technologies
- Applies Technology to Task -- Understands overall intent and proper procedures for setup and operation of equipment
- Maintains and Troubleshoots Equipment -- Prevents, identifies, or solves problems with equipment, including computers and other technologies

Appendix D:

RECOMMENDATION #1 New York State must institute and maintain world-class standards in the academic areas that form the foundation for all education.

RECOMMENDATION #2 New York State must institute and maintain world-class standards for the workplace skills needed to succeed in careers.

RECOMMENDATION #3 To help students reach these new expectations of progress in academics and work-related skills, New York State must embark on significant new directions in public education. Specifically:

— All students must pursue a more rigorous program of academic fundamentals;

— Workplace skills and career information must be integrated into the curriculum from kindergarten on;

— At the high school level, the general track option leading to a local high school diploma should be eliminated. New career pathways free of stereotyping should be created that prepare all youth for work and life-long learning;

— A school-structured on-the-job experience should be required of all secondary school students after they have demonstrated work-readiness skills.

RECOMMENDATION #4 New York State should institute three benchmarks that will certify young people have successfully demonstrated skills or content knowledge according to clearly defined world-class standards:

— A **Career Pathways Certificate (CPC)**, which might typically be earned at age 16, would signify a youth's mastery of rigorous academics and entry-level work-readiness skills;

— A **high school diploma** would be awarded for demonstrated mastery of advanced academics and work-related skills. Instruction leading to a high school diploma should allow young people flexibility in pursuing a variety of career pathways and should include a school-structured work experience for all students.

— A **Professional and Technical Certificate (PTC)**, would certify mastery of skills and knowledge in a specific field. It would be awarded to those who have demonstrated their CPC competencies, completed their high school requirements, and met world-class standards in a specific occupational area of professional or technical certification. These certificates in many cases might include training beyond high school, and youth could earn them at a variety of sites.

RECOMMENDATION #5 We need to restructure public education to create environments that foster development of the thinking and problem-solving skills young people will need to succeed in careers and in life.

RECOMMENDATION #6 New state standards should be phased in over time to ensure students have fair and equal opportunities to meet the standards.

RECOMMENDATION #7 Employers and labor unions should be active participants in all phases of developing and implementing new career pathways for youth.

RECOMMENDATION #8 Multiple learning environments should be designated to provide instruction leading to a CPC for youth who have dropped out of the public schools — even as we commit to reducing the number of students who leave school to zero from current levels. Alternative learning environments also should be designated to provide instruction leading to a CPC for adults.

RECOMMENDATION #9 Youth who wish to work before the age of 18 should have earned a CPC or be enrolled in a program leading toward a CPC, subject to the establishment of a strong and flexible system of support that would allow youth to remain connected to education even if they drop out of school.

RECOMMENDATION #10 The state Curriculum and Assessment Council should be established as a permanent entity that would serve as a standards board to advise the Regents on the standards for attainment of a Career Pathways Certificate; the Council's membership should be amended as necessary to include representation from employers and labor who can provide perspective on the skills and education needed to succeed in the workplace. In addition, the state should establish a New York State Professional and Technical (PT) Standards Board charged with designing and implementing a statewide system of professional and technical performance standards for entry-level jobs in a range of occupations and trades.

RECOMMENDATION #11 New York State should provide funding for implementing new career pathways that will ensure all youth have equal opportunities to learn.

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